

whamcloud

The logo for Whamcloud features the word "whamcloud" in a bold, dark grey, lowercase sans-serif font. A thick blue horizontal line underlines the text. On the right side, a blue graphic element consisting of two overlapping curved lines forms a stylized shape that resembles a cloud or a drop, partially overlapping the end of the text and the underline.

Lustre Releases

- Peter Jones
Support and Releases Manager
Whamcloud, Inc.

Agenda

- Whamcloud Release Streams
- Lustre 1.8.x
- Lustre 2.1.x
- Lustre 2.2
- Lustre Roadmap
- Summary

Whamcloud Release Streams

- Whamcloud defines two release streams
 - The designated maintenance release stream is targeted for conservative users wishing to use a well-proven release
 - The feature release stream is targeted for those requiring first access to new features
- Bugfix releases every quarter for maintenance release stream
 - Currently 2.1.x is the designated maintenance release stream
 - Use combination of support metrics and customer demand to determine when to switch
- Feature releases every six months
 - Not all feature releases will have maintenance releases

Lustre 1.8.x

- Whamcloud continues to support Lustre 1.8.x
 - Former June 2012 EOL has been deprecated
 - We intend to offer Lustre 1.8.x support as long as there is sufficient demand
- Whamcloud to release 1.8.8-wc1
 - A supplemental release to provide RHEL6.2 support
- Oracle still producing Lustre 1.8.x releases
 - Be aware that Oracle releases do not necessarily facilitate upgrade path to 2.x releases
 - Discussions underway on how to reconcile differences between release streams

Lustre 2.1.x

- Lustre 2.1.0 released Q3 2011
- Lustre 2.1.1 released in Q1
 - Provided bugfixes and RHEL6.2 server and client support
- Lustre 2.1.2 scheduled for release in Q2
 - Will incorporate bugfixes from large sites running 2.1.x in production
- Intention is to match Lustre 1.8.x for stability
 - Still early days in this process

Lustre 2.2

- Released March 30th as per the schedule
- Changelog available at <http://wiki.whamcloud.com/display/PUB/Changelog+2.2>
- First release to benefit from OpenSFS funding
 - Covers some of the costs of maintaining the community tree
- Regular updates throughout release cycle
 - JIRA filters provide dynamic list of blockers
 - Open access to issues (JIRA); patches (git/gerrit) and test results (maloo)
 - Biweekly email update to wc-discuss and CDWG mailing lists
 - Quarterly reports posted on OpenSFS CDWG wiki

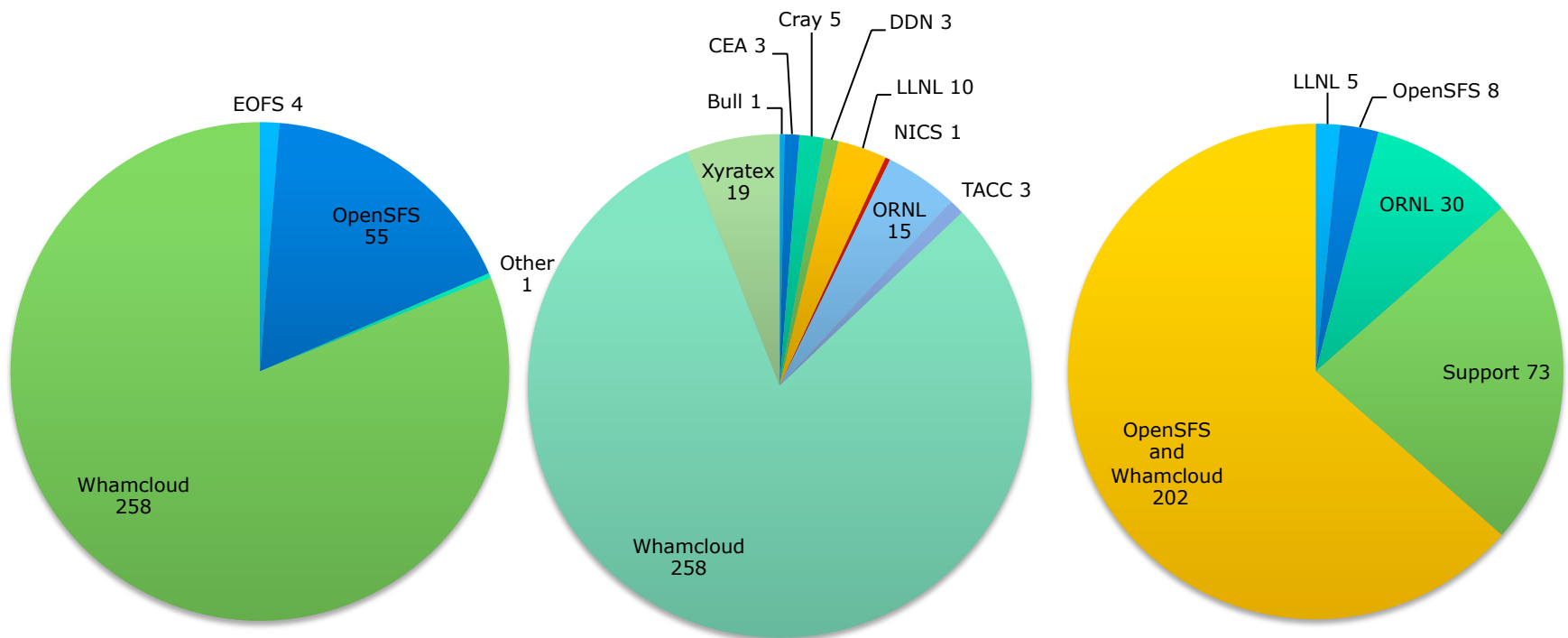
Lustre 2.2 - Features

- **Asynchronous Glimpse Lock/Statahead (LU925/LU389)**
 - Improved performance for ls -l/find and accessing object attributes (file sizes/xtime etc)
 - Development funded by ORNL
- **Client Parallel Checksums (LU884)**
 - Improved support for mmap and better performance using checksums
 - Development funded by ORNL
- **Imperative Recovery (LU580)**
 - Faster recovery
 - Development funded by ORNL
- **Large Xattrs (aka Wide Striping) (LU80)**
 - Maximum stripe size raised from 160 to 2000; max file size increased from 320 TB to 64PB
 - Completing work funded by Sun for ORNL
 - ORNL/Xyratex helped with this initiative
- **Mds-survey (LU593/LU633)**
 - Tool for MDS performance benchmarking
 - Development funded by LLNL
- **Parallel Directory Operations (LU50)**
 - Improved performance when multiple processes access the same directory in parallel
 - Development funded by OpenSFS

Lustre 2.2 – Accomplishments

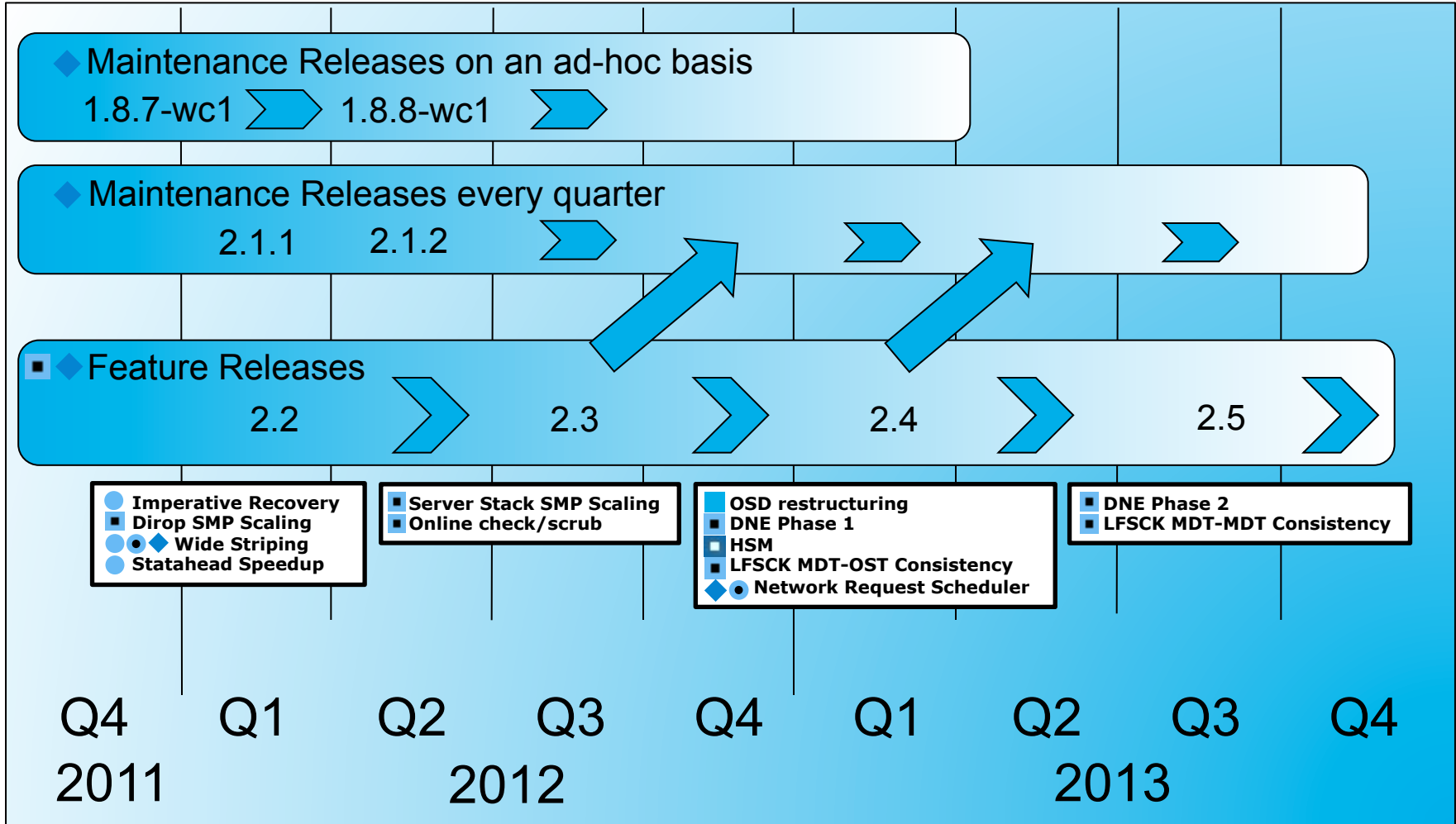
- Amount of test automation greatly increased
 - Reduces the overhead of making releases and increases the likelihood of catching regression earlier in the release cycle
- Test reports facility added
 - <https://maloo.whamcloud.com/reports>
 - Highlights areas where tests need improving
- Testing resources at IU and FZJ utilized during test cycle
- System wide Hyperion testing conducted
 - 1100+ clients
- Community Development wiki established
 - <http://wiki.whamcloud.com/display/PUB/Lustre+Community+Development+in+Progress>
 - Aim is to foster greater collaboration and prevent duplication of effort with development across organizations

Lustre 2.2 – Landings



Source: http://git.whamcloud.com/?p=fs/lustre-release.git;a=shortlog;h=refs/heads/b2_2

Community Lustre Roadmap



Sponsor for Whamcloud Development and Releases: ● ORNL ■ OpenSFS ■ LLNL ◆ Whamcloud
 Third Party Development: ■ CEA ● Xyratex

Summary

- Lustre 1.8.8-wc1 scheduled for Q2 2012
- Lustre 2.1.2 scheduled for Q2 2012
- Lustre 2.3 scheduled for Q3 2012



Thank You

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